

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2008-XXXX

**WASTE DISCHARGE REQUIREMENTS
FOR
PORT OF LONG BEACH
(FORMER LONG BEACH NAVAL COMPLEX
INSTALLATION RESTORATION SITE 7 DREDGING PROJECT)
(FILE NO. 08-133)**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. The Port of Long Beach (POLB) has filed an application for Waste Discharge Requirements for dredging operations within the West Basin of Long Beach Harbor, Los Angeles County (Figure 1).
2. Installation Restoration Site 7 (IR Site 7) comprises approximately 700 acres of submerged land in the POLB's West Basin and is adjacent to the former Long Beach Naval Complex (LBNC) (Figure 1). Water depths in IR Site 7 range from 0 to -45 feet mean lower low water (MLLW).

Beginning in 1938, the United States Navy constructed and operated the LBNC for troop deployment and industrial uses, including ship construction and repair. The former LBNC housed two major naval facilities: the Long Beach Naval Shipyard (LBNS) and the Naval Station Long Beach (NAVSTA). The LBNC provided logistical support for ships and performed work in connection with construction, conversion, overhaul, repair, alteration, dry-docking and fitting out of ships. From the early 1940s to the mid-1970s, various fuels, oils, and other organic and metal wastes were discharged at IR Site 7. As a result, the sediments within the site contain heavy metals, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) at levels predicted to cause ecological risks to the resident benthic communities.

After more than 50 years of service, the NAVSTA was closed on September 30, 1994, under the Base Re-alignment and Closure Act (BRAC) II. On September 30, 1997, the LBNS was closed under BRAC IV. Site ownership for the majority of the submerged land within the West Basin formally was reverted to POLB under the BRAC program. Currently, a 100-foot annulus surrounding the West Basin remains under Navy ownership; however, the Navy plans to transfer this property to POLB. In 1998, an Environmental Impact Statement/Environmental Impact

October 2, 2008

**T
E
N
T
A
T
I
V
E**

Report (EIS/EIR) was prepared jointly by the United States Navy and POLB which described the reuse of the entire LBNS complex, including a proposed liquid bulk terminal on Pier Echo and a neobulk/breakbulk terminal on the United States Navy Mole.

As a condition for the property ownership transfer, POLB assumes responsibility for performing all remediation necessary to protect human health and the environment with respect to any hazardous substances which may exist in the West Basin. As part of the site closure process, a Remedial Investigation/Feasibility Study (RI/FS) investigated potential areas of contamination and evaluated options for remediation in an effort to reduce estimated ecological and human health risks. Investigations at IR Site 7 identified several chemically-impacted Areas of Ecological Concern (AOEC) and identified several Chemicals of Ecological Concern (COEC) with the potential to produce significant risk to benthic communities.

A proposed plan was developed that provides the greatest level of protection to IR Site 7 benthic communities, achieves the remedial action objectives, provides the greatest level of long-term effectiveness and permanence, and is easily implemented. To achieve this end, Sediment Management Objectives were developed. The remedies of the proposed plan are:

- AOEC-A and AOEC-C: removal and discharge of the AOEC sediments at off-site (outside IR Site 7) projects, thereby creating a clean substrate which will support the presence of an ecologically productive and diverse benthic community.
- AOEC-B: no remedial action necessary to protect the environment, since chemical concentrations have not resulted in sediment toxicity or adverse effects on the benthic community.
- AOEC-E, AOEC-F and AOEC-G (Pier AOECs): limited action necessary to implement institutional controls for the purpose of preventing unauthorized or uncontrolled disturbance and/or exposure of chemically impacted sediments underneath piers.
- AOEC-D: accepted as a no-action area, given low levels of contamination.

A subsequent Record of Decision (ROD) accepting the proposed remedy was signed by the United States Navy and the California Department of Toxic Substances Control in September 2007. Staff from the United States Environmental Protection Agency and the Los Angeles Regional Water Quality Control Board participated in the process to develop the proposed remedy and support the remedies outlined above as a solution to the sediment contamination problems in IR Site 7.

T
E
N
T
A
T
I
V
E

3. POLB proposes to dredge approximately 800,000 cubic yards of contaminated sediments from two areas of IR Site 7, namely AOEC-A and AOEC-C (Figure 2). The dredged material will be disposed of within a constructed, contained fill site at Pier G (Figure 2). The method of dredging either will be mechanical (clam-shell dredge), with dredged material transported to the fill site via split-hull bottom-dump barges, or via hydraulic pipeline, with dredged material pumped in slurry form to the fill site. Dredging will remove approximately 6 feet of material from AOEC-A and AOEC-CW (West), and approximately 4 feet of material from AOEC-CE (East) (Figures 3, 4, 5 and 6). The dredging operation is expected to require approximately 62 working days for completion.

POLB also proposes to remove the abandoned sonar calibration pier from AOEC-CW and to remove and dismantle four sunken barges from AOEC-C. Removal of the dilapidated pier structure requires abatement of asbestos-wrapped above-water utilities, removal of the timber and steel superstructure and removal of the concrete piling. Materials will be recycled or disposed of at an approved upland disposal site. The four sunken barges will be retrieved and placed on an upland site in the port for hazardous material inspection, abatement (if necessary) and dismantlement. Demolition of the barges will generate an estimated 5000 cubic yards of debris during a 20-day work period, which will be disposed of at an approved upland disposal site.

4. The Pier G constructed fill site will be located at the north end of the Pier G Slip, near Berths G229-233. A rock containment dike will be constructed at the fill site and clean sand will be placed behind the rock dike. POLB has designed the Pier G Slip landfill to effectively contain chemically contaminated materials and to control runoff of decant water from the settling of dredged material at the site. Any contaminated sediments placed at this site will be capped and sequestered by the placement of uncontaminated materials on top and at the sides.
5. Sediment Management Objectives (SMOs) were developed during the RI/FS process to guide removal of contaminated sediments with the potential to produce significant risk to benthic communities (Table 1). POLB will conduct a confirmation sampling program to verify that contaminant levels remaining in sediments within the IR Site 7 area following completion of the dredging operations fall below these thresholds. In the event that sediments remain within IR Site 7 with contamination concentrations exceeding SMOs, POLB will be responsible for dredging and disposing of this additional material.

T
E
N
T
A
T
I
V
E

Table 1. Sediment Management Objectives for IR Site 7.

Contaminant	Sediment Management Objective
Copper	254 milligrams per kilogram
Lead	100 milligrams per kilogram
Mercury	0.9 milligrams per kilogram
Silver	3.5 milligrams per kilogram
Zinc	307 milligrams per kilogram
Total PAHs	5,400 micrograms per kilogram
Total PCBs	570 micrograms per kilogram
Total DDTs	210 micrograms per kilogram

6. POLB submitted a permit application to the United States Corps of Engineers (COE) for the permit application for proposed dredging and disposal operations associated with the Former Long Beach Naval Complex Installation Restoration Site 7 Dredging Project (SPL-2007-00708-TS). The COE is expected to issue the final permit following adoption of the waste discharge requirements by the Los Angeles Regional Water Quality Control Board.
7. POLB is the Lead Agency under the California Environmental Quality Act in the preparation of a Mitigated Negative Declaration (MND) for the Former Long Beach Naval Complex Installation Restoration Site 7 Dredging Project. On October 13, 2008, the City of Long Beach Board of Harbor Commissioners adopted the MND.
8. The Regional Board adopted a revised Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties on June 13, 1994. The Water Quality Control Plan contains water quality objectives for Los Angeles-Long Beach Harbor. The requirements contained in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.
9. The beneficial uses of Los Angeles-Long Beach Harbor (All Other Inner Areas) are: industrial process supply, navigation, water contact recreation (potential), non-contact water recreation, commercial and sport fishing, marine habitat, shellfish harvesting (potential), and preservation of rare, threatened or endangered species (one or more species utilize waters or wetlands for foraging and/or nesting).
10. With proper management of the dredging and disposal operations, the project is not expected to release significant levels of contaminants to the Harbor waters or other State waters nor adversely impact beneficial uses.

T
E
N
T
A
T
I
V
E

11. Dredging and disposal operations will be accomplished through the use of temporary equipment. The Waste Discharge Requirements imposed below will not result in any significant increase in energy consumption.

The Regional Board has notified the Port of Long Beach and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that the Port of Long Beach, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Requirements

1. The removal and placement of dredged/excavated material shall be managed such that the concentrations of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial uses.
2. Enclosed bay and estuarine communities and populations, including vertebrate, invertebrate and plant species, shall not be degraded as a result of the discharge of waste.
3. The natural taste and odor of fish, shellfish or other enclosed bay and estuarine resources used for human consumption shall not be impaired as a result of the discharge of waste.
4. Toxic pollutants shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.
5. There shall be no acute toxicity or chronic toxicity in ambient waters as a result of the discharge of waste.
6. Dredging, excavation or disposal of dredge spoils shall not cause any of the following conditions in the receiving waters:

T
E
N
T
A
T
I
V
E

- a. The formation of sludge banks or deposits of waste origin that would adversely affect the composition of the bottom fauna and flora, interfere with the fish propagation or deleteriously affect their habitat, or adversely change the physical or chemical nature of the bottom.
- b. Turbidity that would cause substantial visible contrast with the natural appearance of the water outside the immediate area of operation.
- c. Discoloration outside the immediate area of operation.
- d. Visible material, including oil and grease, either floating on or suspended in the water or deposited on beaches, shores, or channel structures outside the immediate area of operation.
- e. Objectionable odors emanating from the water surface.
- f. Depression of dissolved oxygen concentrations below 5.0 mg/l at any time outside the immediate area of operation.
- g. Any condition of pollution or nuisance.

B. Provisions

1. The Discharge Requirements specified above are valid only for dredging of a maximum of 800,000 cubic yards of sediment, disposal of the dredged material at the Pier G Slip constructed fill site, and removal of an abandoned sonar calibration pier and four sunken barges as described in Finding 3 above.
2. POLB shall manage the Pier G Slip constructed fill disposal site to effectively contain chemically contaminated materials and to prevent migration of contaminants from the disposal site into State waters.
3. POLB shall notify the Regional Board immediately by telephone of any adverse conditions in receiving waters or adjacent areas resulting from the removal of dredge materials or disposal operations; written confirmation shall follow within one week. POLB also shall notify the Regional Board immediately if confirmation sampling indicates that contaminant concentrations exceed the established Sediment Management Objectives (SMOs) in harbor sediments remaining within IR Site 7 following completion of the dredging operations. In this case, POLB shall submit a plan within 90

T
E
N
T
A
T
I
V
E

days describing additional dredging and disposal operations proposed to remove contaminated sediments that exceed the SMOs.

3. A copy of this Order shall be made available at all times to project construction personnel.
4. POLB shall provide the following information to the Regional Board:
 - a. A copy of the final permit issued by the United States Corps of Engineers for the dredge and disposal operations.
 - b. The scheduled date of commencement of each dredging and disposal operation at least one week prior to initiation of dredging.
 - c. Notice of termination of dredging and disposal operations, within one week following the termination date.
5. POLB shall submit, under penalty of perjury, technical reports to the Regional Board in accordance with specifications prepared by the Executive Officer.
6. In accordance with section 13260(c) of the Water Code, POLB shall file a report of any material change or proposed change in the character, location, or volume of the waste.
7. These requirements do not exempt POLB from compliance with any other laws, regulations, or ordinances which may be applicable: they do not legalize this waste discharge, and they leave unaffected any further restraint on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
8. In accordance with Water Code section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into waters of the State are privileges, not rights.
9. This Order includes Attachment N: "Standard Provisions, General Monitoring and Reporting Requirements" ("Standard Provisions") and the attached Monitoring and Reporting Requirements, both of which are incorporated herein by reference. If there is any conflict between provisions stated hereinbefore and said "Standard Provisions", those provisions stated

T
E
N
T
A
T
I
V
E

hereinbefore prevail. If there is any conflict between requirements stated in the attached Monitoring and Reporting Program and said "Standard Provisions", the former shall prevail.

10. This Order fulfills the requirements for a Clean Water Act Section 401 Water Quality Certification for the proposed project. Pursuant to section 3860 of title 23 of the California Code of Regulations (23 CCR), the following three standard conditions shall apply to this project:
 - a. this certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and Article 6 (commencing with 23 CCR section 3867);
 - b. this certification action is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought;
 - c. this certification is conditioned upon total payment of any fee required pursuant to 23 CCR division 3, chapter 28, and owed by the applicant.
11. This Order shall expire on December 31, 2010.

I, Tracy J. Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 11, 2008.

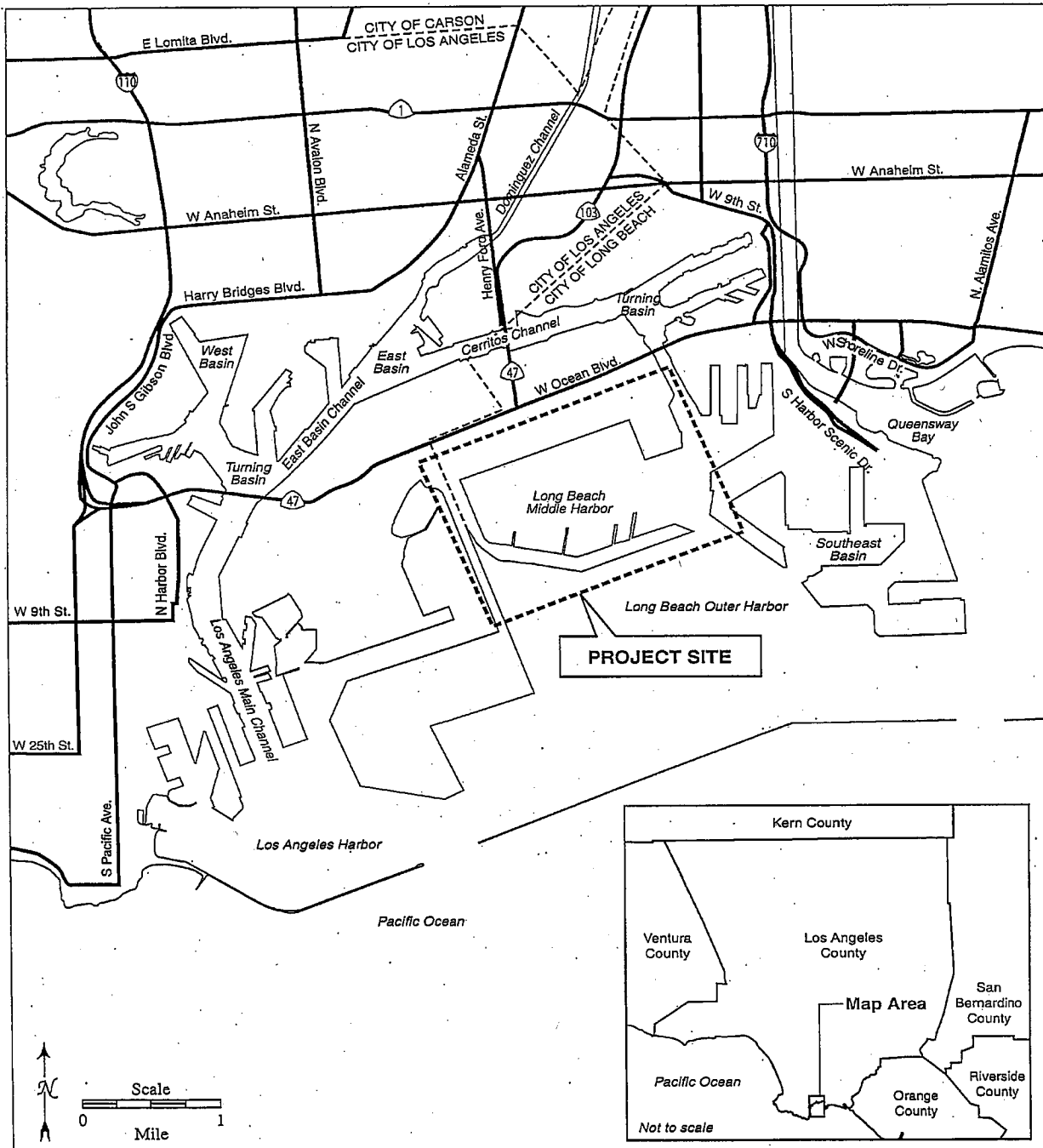
TRACY J. EGOSCUE
Executive Officer

vjml

T
E
N
T
A
T
I
V
E

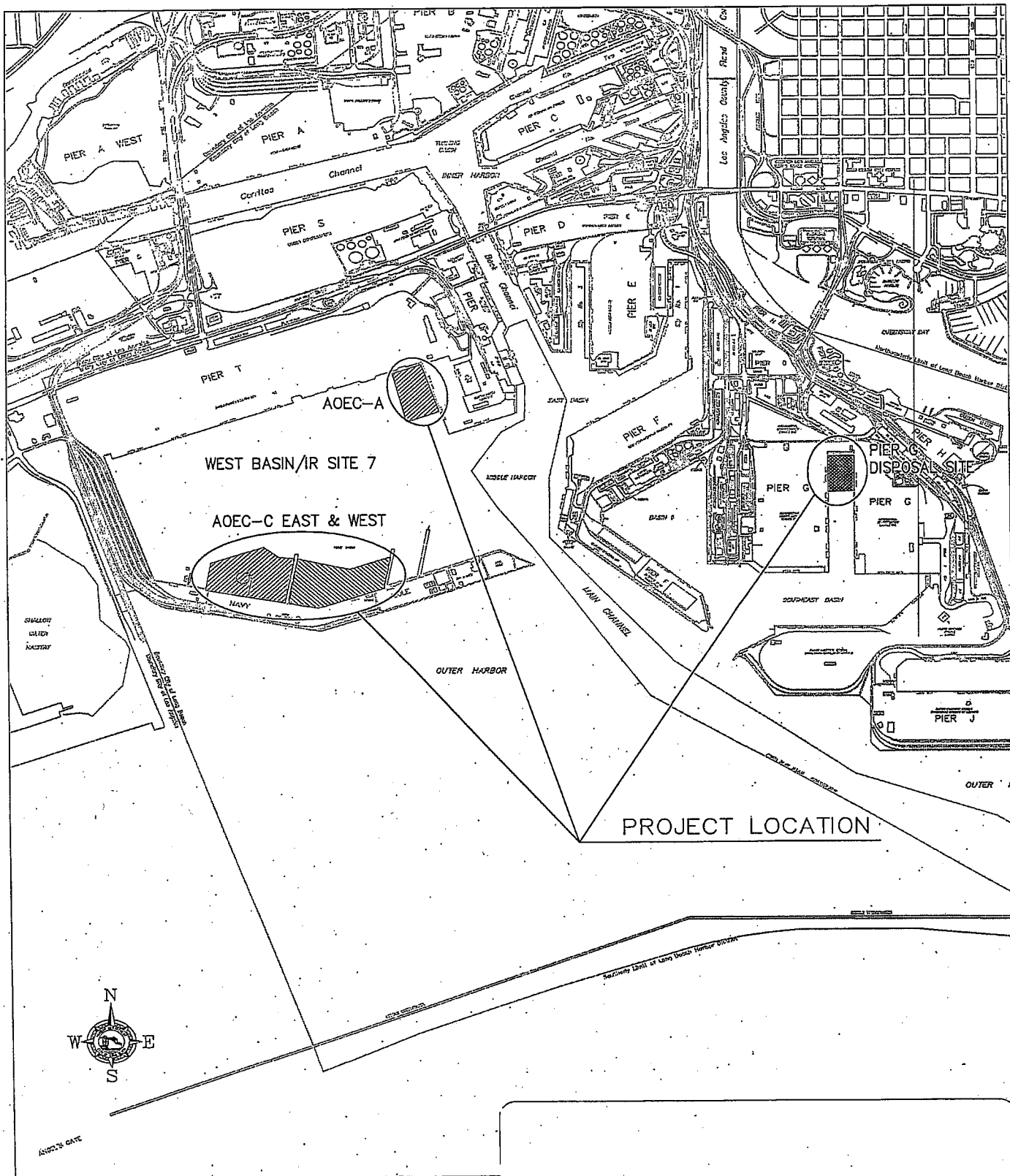
Port of Long Beach
Former Long Beach Naval Complex
Installation Restoration Site 7 Dredging Project

Order No. R4-2008-xxxx



T
E
N
T
A
T
I
V
E

Figure 1. Location map for Former Long Beach Naval Complex Installation Restoration Site 7 Dredging Project in West Basin, Long Beach Harbor:



T
E
N
T
A
T
I
V
E

Figure 2. Location of Former Long Beach Naval Complex Installation Restoration Site 7 Dredging Project in West Basin, Long Beach Harbor.

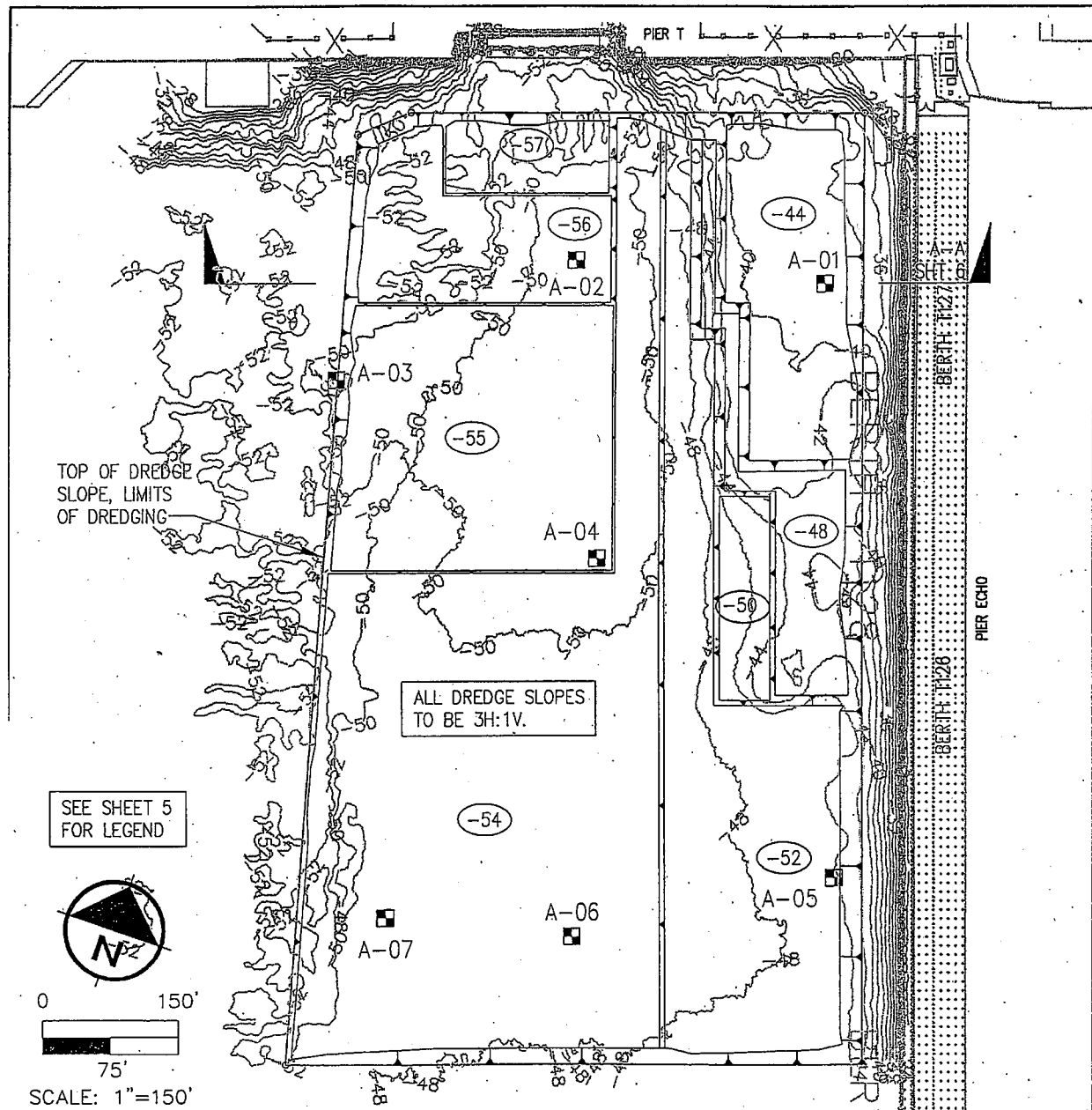
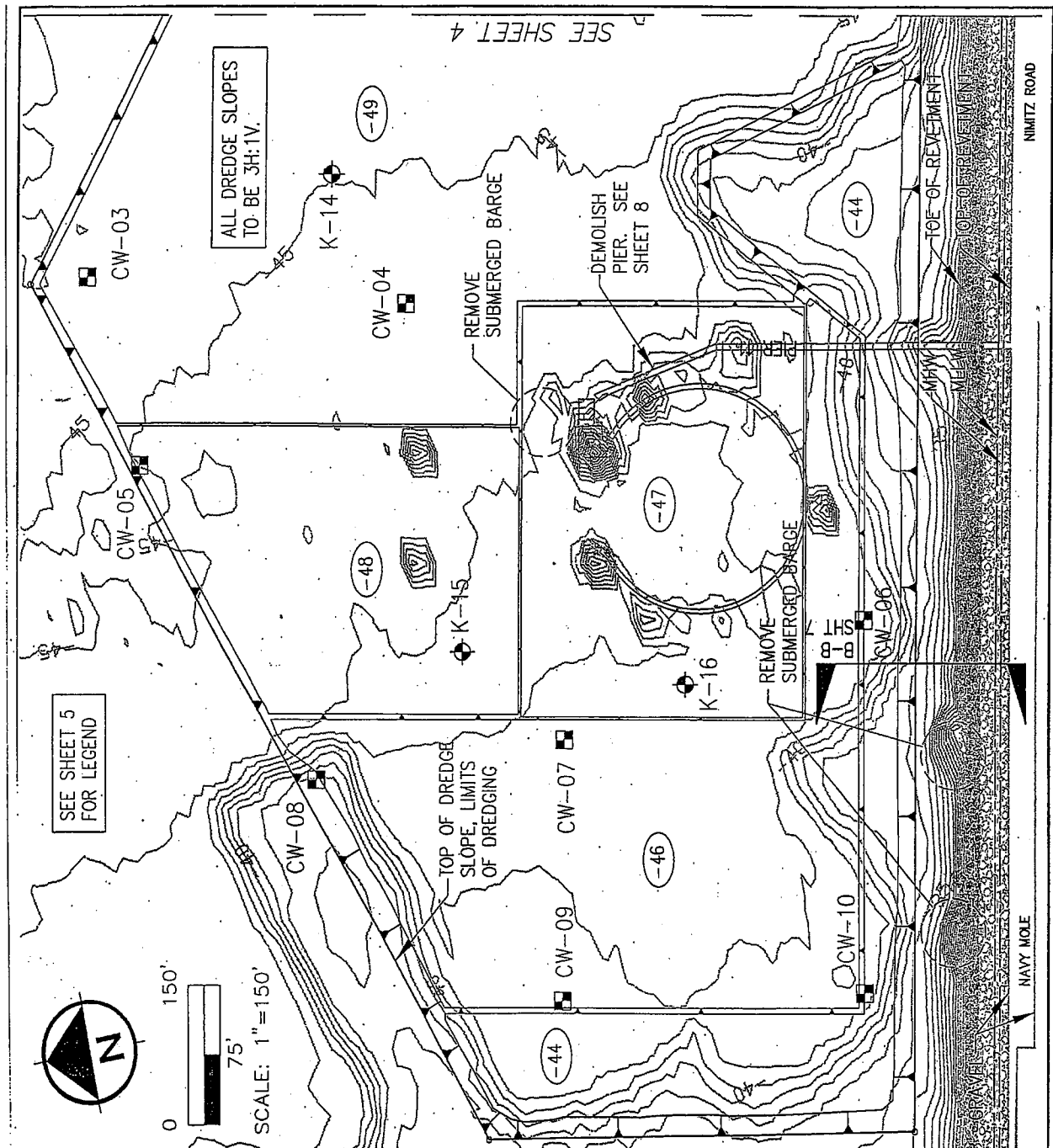


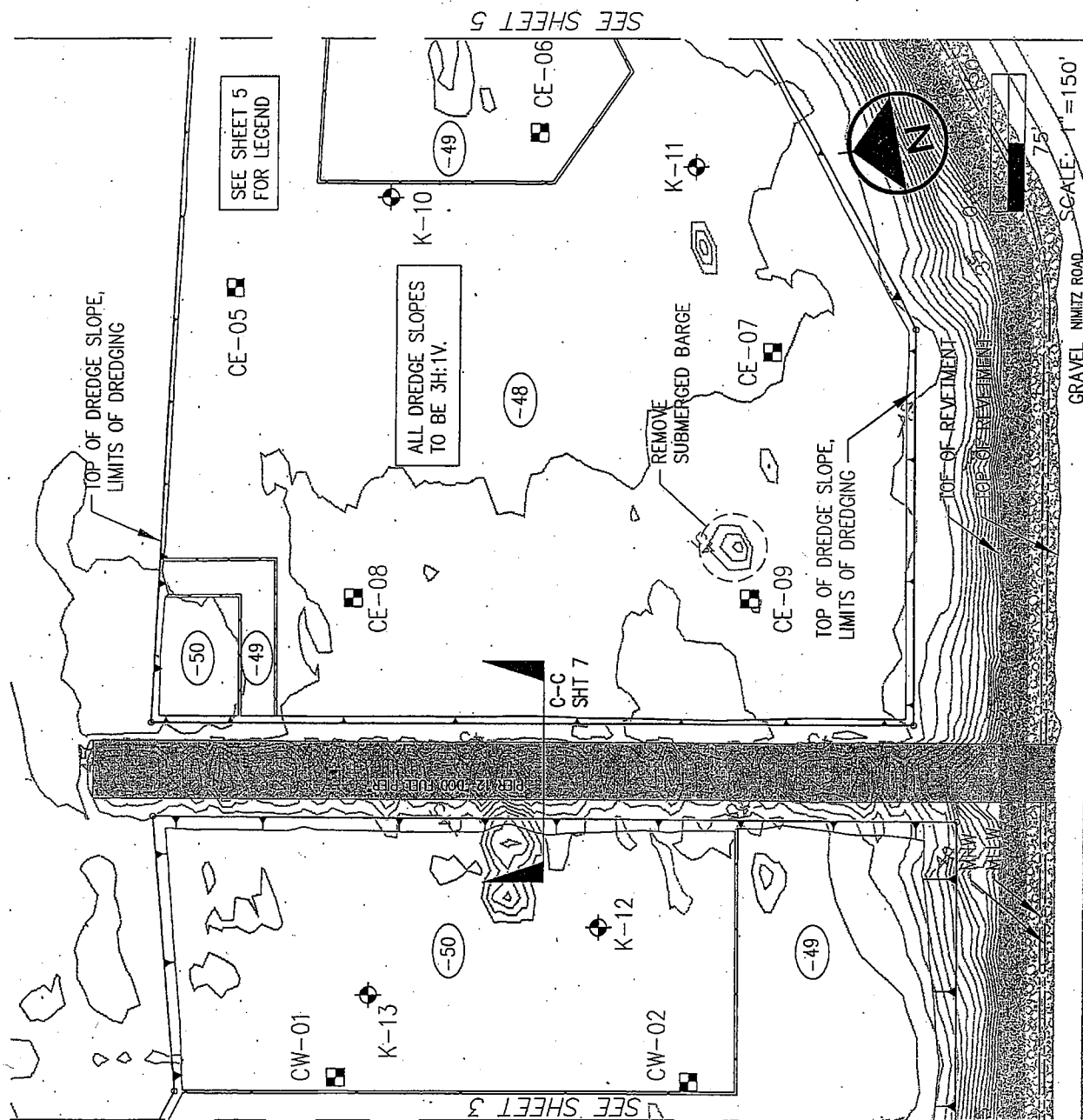
Figure 3. Dredging plan for AOEC-A for IR Site 7.

T
E
N
T
A
T
I
V
E



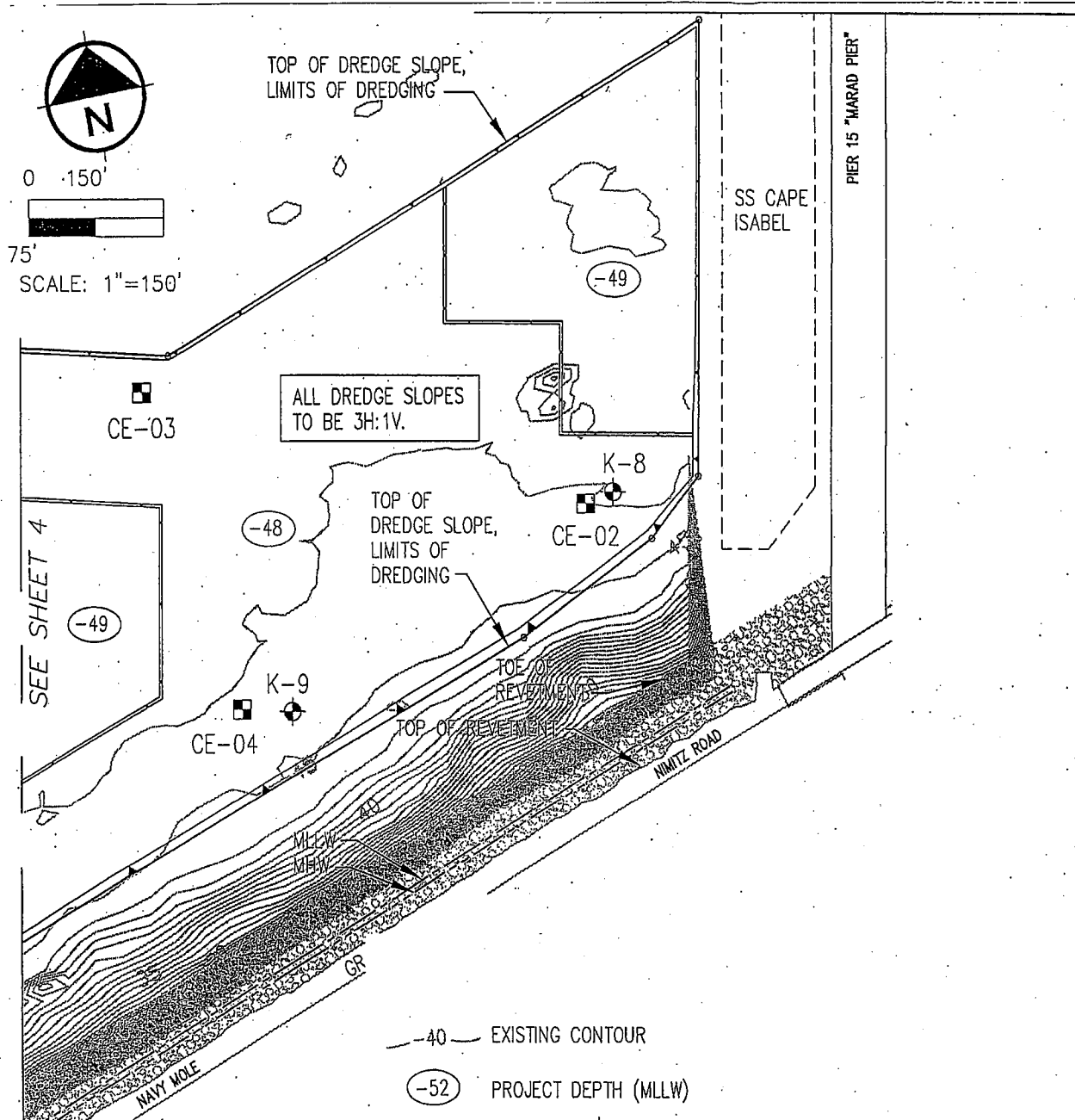
TENTATIVE

Figure 4. Dredging plan for AOEC-C East for IR Site 7.



TENTATIVE

Figure 5. Dredging plan for AOEC-C East and West for IR Site 7.



T
E
N
T
A
T
I
V
E

Figure 6. Dredging plan for AOEC-C West for IR Site 7.

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. xxxx
FOR
PORT OF LONG BEACH
(FORMER LONG BEACH NAVAL COMPLEX
INSTALLATION RESTORATION SITE 7 DREDGING PROJECT)
(FILE NO. 08-133)

1. Receiving Water Monitoring

The following sampling protocol shall be undertaken by the Port of Long Beach (POLB) during the proposed dredging project. Sampling for the receiving water monitoring shall commence at least one week prior to the start of the dredging and fill operations and continue at least one week following the completion of all such operations. Sampling shall be conducted a minimum of once a week during dredging operations. Sampling shall be conducted down current of the dredge sites at least one hour after the start of dredging operations. All receiving water monitoring data shall be obtained via grab samples or remote electronic detection equipment. Receiving water samples shall be taken at the following stations:

<u>Station</u>	<u>Description</u>
A	30.5 meters (100 feet) up current of the dredging operations, safety permitting.
B	30.5 meters (100 feet) down current of the dredging operations, safety permitting.
C	91.5 meters (300 feet) down current of the dredging operations.
D	Control site (area not affected by dredging operations).

The following shall constitute the receiving water monitoring program:

<u>Water Column Monitoring</u>			
<u>Parameters</u>	<u>Units</u>	<u>Station</u>	<u>Frequency</u>
Dissolved oxygen ¹	mg/l	A-D	Weekly ²
Light transmittance ¹	% Transmittance	" "	"
pH ¹	pH units	" "	"
Suspended solids ³	mg/l	" "	"

¹Measurements shall be taken throughout the water column (at a minimum, at 2-meter increments).

²During the first two weeks of dredging, stations shall be sampled two times per week.

³Mid-depth shall be sampled.

October 2, 2008

T
E
N
T
A
T
I
V
E

Water column light transmittance values from Stations C and D shall be compared for the near surface (1 meter below the surface), for mid-water (averaged values throughout the water column, excluding the near surface and bottom) and for the bottom (1 meter above the bottom). If the difference in % light transmittance between stations C and D for the near surface or mid-water or bottom is 30% or greater, water samples shall be collected at mid-depth (or the depth at which the maximum turbidity occurs) and analyzed for trace metals, DDTs, PCBs and PAHs. At a minimum, one set of water samples shall be collected and analyzed for these chemical constituents during the maintenance dredging operation.

In the event that the water column light transmittance values from Stations C and D exceed the 30% trigger described above, POLB shall conduct the standard water quality monitoring described above for three consecutive days following the date of exceedance. POLB shall notify the Regional Board, the California Coastal Commission, the United States Environmental Protection Agency and the United States Army Corps of Engineers within 24 hours following observance of the transmissivity exceedance. POLB shall investigate whether the exceedance is due to obvious dredging operational problems and can be corrected easily and quickly. However, if the turbidity problem persists or recurs, the POLB shall look for other causes of the problem and evaluate whether additional, more aggressive best management practices are required to eliminate the exceedances; this evaluation shall be performed in consultation with the four regulatory agencies listed above.

Color photographs shall be taken at the time of sampling to record the presence and extent of visible effects of dredging operations. These photographs shall be submitted with the receiving water monitoring reports.

POLB shall provide Regional Board staff with a receiving water monitoring program field schedule at least one week prior to initiating the program. Regional Board staff shall be notified of any changes in the field schedule at least 48 hours in advance.

2. Observations

The following receiving water observations shall be made and logged daily during dredging or excavating operations:

- a. Date and time;
- b. Direction and estimated speed of currents;
- c. General weather conditions and wind velocity;
- d. Tide stage;
- e. Appearance of trash, floatable material, grease, oil or oily slick, or other objectionable materials;
- f. Discoloration and/or turbidity;
- g. Odors;

T
E
N
T
A
T
I
V
E

- h. Depth of dredge operations during previous day;
- i. Amount of material dredged the previous day;
- j. Cumulative total amount of material dredged to date.

3. Confirmation Sampling

The proposed dredging project is expected to remove contaminated sediments present within the Former Long Beach Naval Complex Installation Restoration Site. To verify the extent of the removal of contaminated sediments and demonstrate that contaminant concentrations are below the established Sediment Management Objectives in the sediments remaining at the site after the dredging project has been completed, POLB shall conduct a confirmation study throughout this area within twelve months following completion of the dredging project. A detailed work plan outlining the proposed scope of the sediment characterization study shall be submitted to the Los Angeles Regional Board for approval by the Executive Officer by June 30, 2009. The schedule for completion of the sediment characterization study may be extended upon approval of the Executive Officer if necessary to accomplish the study objectives.

4. General Provisions

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" promulgated by the United States Environmental Protection Agency.

All chemical analyses shall be conducted at a laboratory certified for such analysis by the State Department of Health Services, Environmental Laboratory Accreditation Program (ELAP), or approved by the Executive Officer.

POLB shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted by third parties under Port supervision.

A grab sample is defined as an individual sample collected in fewer than 15 minutes.

All samples shall be representative of the waste discharge under normal operating conditions.

4. Reporting

Monitoring reports shall be submitted within 10 days following each weekly sampling period. In reporting, POLB shall arrange the monitoring data in tabular form so that dates, time, parameters, test data, and observations are readily discernible. The data shall be summarized to demonstrate compliance with the waste discharge requirements. A final report, summarizing the results of the weekly monitoring and reporting the total volume discharged, shall be submitted within one month

T
E
N
T
A
T
I
V
E

of completion of the project.

Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

Each monitoring report must affirm in writing that:

All analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current EPA guidelines or as specified in the Monitoring Program.

For any analysis performed for which no procedure is specified in the EPA guidelines or in the Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

5. General Provisions for Reporting

For every item where the requirements are not met, POLB shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Executed on the _____ day of _____, 20____,
at _____.

(Signature)

(Title)"

T
E
N
T
A
T
I
V
E

Monitoring and Reporting Program No. xxx
Port of Long Beach
Former Long Beach Naval Complex
Installation Restoration Site 7 Dredging Project

Order No. R4-2008-xxxx

These records and reports are public documents and shall be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:

TRACY J. EGOSCUE
Executive Officer

Date: December 11, 2008

T
E
N
T
A
T
I
V
E